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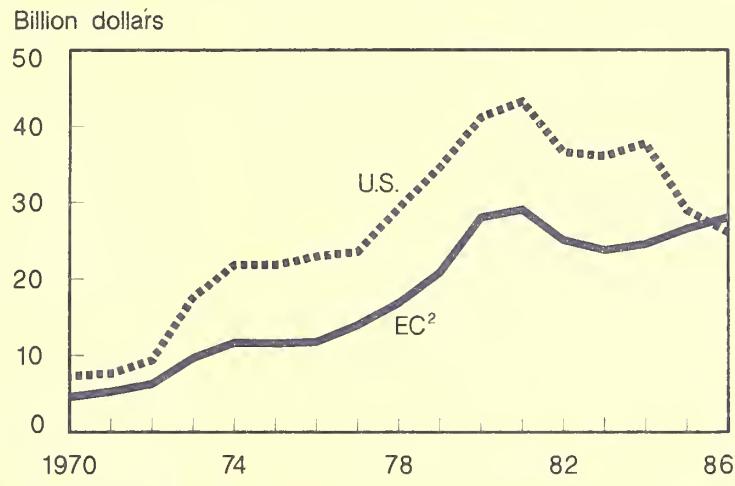
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World Agriculture

Situation and Outlook Report

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EC and U.S. Agricultural Exports¹



1/ Excluding intra-EC trade.

2/ EC-6 from 1970 through 1973; EC-9 1974-80; EC-12 from 1985.

EC overtakes United States as
world's leading agricultural exporter.

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Note: Tons are metric, dollars are U.S., and rice is on a milled basis unless specified otherwise.

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SUMMARY

After declining for 3 years, the rate of world economic growth is forecast to increase in 1988. Outside the United States, economic growth is forecast at 2.7 percent, after adjusting for inflation. With the United States included, the growth rate is projected at 3.0 percent. Among industrialized countries, the United States will contribute much more to world economic growth than Japan or West Germany. Oil-exporting countries stand to benefit from recently higher oil prices. However, extremely low world market prices for most developing countries' exports will continue to inhibit economic growth in those countries.

Increases in commercial U.S. interest rates, starting in mid-April, supported the dollar during the summer from declines suffered in January. Interest rate differentials favoring the dollar, as well as political tensions in the Persian Gulf, strengthened the dollar slightly until announcement of poorer-than-expected U.S. trade statistics for June and July led to market reaction against it. The September 4 increase in the U.S. Federal Reserve discount rate, from 5.5 to 6.0 percent, should help buoy the dollar, as well as help restrain U.S. inflationary price increases.

The enlarged European Community in calendar 1986 moved ahead of the United States as the world's major agricultural exporter in dollar terms. The volume of U.S. agricultural exports will rise in fiscal 1987 for the first time in 7 years, largely due to the implementation of the Food Security Act of 1985. The increased competitiveness of U.S. agricultural exports is expected to result in additional value and volume gains in fiscal 1988.

At negotiations of the General Agreement on Tariffs and Trade earlier this year, the

United States proposed the phaseout over a 10-year period of all agricultural subsidies that directly or indirectly affect trade, specifically all agricultural exports covered by export subsidies, and of barriers to agricultural imports. Items covered by the U.S. proposal would include all agricultural commodities, food, beverages, forest products, and fish and fish products.

The U.S. proposal was generally welcomed as a major advance in the negotiations. Major trading countries, such as Argentina, Australia, Canada, the EC, Japan, New Zealand, and others, have noted their intentions to make their own proposals later this fall. Meanwhile, the EC Council of Agriculture Ministers agreed to a 1987/88 price package instituting minor changes in support prices. Effective price reductions are small, given the gap between EC and world prices.

The EC also hopes to deal with an expected deficit of \$5-7 billion this year by having the EC Commission reimburse member states for actual spending, rather than providing cash advances for predicted expenditures on a monthly basis. At the last European summit, Prime Minister Margaret Thatcher said that some legally binding limits on agricultural spending will be a necessary precondition for agreement to expand the EC revenue base at the Copenhagen summit in December.

Printed copies of the World Agriculture Situation and Outlook Report will be available in about a week. For further information, contact Art Dommen (202) 786-1680. The report, including summary and tables, also will be available electronically. For details, call (202) 447-5163.

WORLD ECONOMIC CONDITIONS

Global Assessment

The factors of sluggish demand for exports from non-U.S. industrialized countries (particularly Japan and West Germany) and the financial drain caused by massive debt servicing and low export earnings in developing countries, central to the assessment for 1987, continue to hold sway over the outlook for 1988. World real economic growth is expected to slow marginally in 1987, reaching 2.6 percent. However, there is some optimism for the 1988 outlook as real growth may accelerate to near 3.0 percent. While not spectacular, such growth would reverse a 3-year trend of decelerating world growth. But, with the possibility of further declines in the dollar, and the defensive measures such declines would force, the risks to the forecast remain on the downside.

The outlook continues to show only modest inflation in developed countries, with prices expected to rise 3 to 3.5 percent in both 1987 and 1988 (compared with 2.5 percent in 1986). Developing countries are expected to fare much worse, with inflation more than doubling to the 80- to 90-percent range in both 1987 and 1988. A significant push to inflation here comes from Brazil, where, with the collapse of the Cruzado Plan, inflation could possibly leap into the 500-percent range. Total world inflation is forecast at around 17 percent for 1987 and 1988, far outstripping the 8.3-percent rate in 1986.

The Dollar's Decline Finally Leads To Some Real Effects on Growth

Justifiably, questions are being raised about how long the United States can serve as the world's sole engine of growth. The U.S. growth outlook for 1987 is good and for 1988 better still, but much of the improvement (spurred by declines in the dollar's value) emanates from long-awaited gains in trade. Through the first half of 1987, real U.S. imports of goods and services contracted at an annual rate of 1.1 percent, while real exports rose at an annual rate of 10.5 percent.

Domestic growth in the other key developed economies, Japan and West Germany, is sub par and has not yet stimulated

the type of import growth that would compensate for the decelerating U.S. import demand. Current expectations do have Japan's real imports of goods and services growing at an accelerated pace in 1987 and 1988 (up 3 to 4 percentage points over 1986's 3.3 percent), but West German import growth (around 3 percent in 1986) probably will remain essentially unchanged in 1987 and only somewhat higher in 1988. As a result, real world growth excluding the United States is not as strong as total world growth, and does not show as strong an upturn in 1988 (up 0.2 percent from 1987's 2.5 percent, just matching 1986's 2.7 percent).

Non-U.S. Developed Country Growth: The Engine That Probably Won't

The slowing of demand for exports from foreign industrialized economies (and the comparative strength of the U.S. economy) is well illustrated in the figures for collective developed-country growth. When the United States is included, there is nearly a 0.5-percentage-point improvement in 1988, with real growth going from an expected 2.4 percent in 1987 to around 2.8 percent. Exclude the United States and virtually no improvement occurs between the 1987 growth rate of 2.2 percent and the 2.3 percent growth projected for 1988. The forecast for the European Community looks much the same, with real growth expected to fall to the 2.0-percent range for 1987 and 1988.

Underlying these figures are projections for Japan and West Germany, which together account for 38 percent of foreign industrialized country growth and 25 percent of total industrialized country growth. With real exports of goods and services forecast to fall in 1987 and to recover only slightly in 1988, Japan is expected to experience the same rate of real growth in 1987 as in 1986 (2.5 percent), with only a marginal improvement in 1988 (2.7 percent). This is despite the enactment of a fiscal package estimated to boost Japan's domestic growth by 1.0 to 2.0 percent. Germany, where the economy contracted at an annual rate of 0.1 percent through the first half of 1987, will not do as well, with a 1987 decline in real exports that is more severe than Japan's and a recovery in 1988 that is only half as strong. The end result is that West German growth in 1987 should slow by around 0.8 percent from

1986's 2.5 percent, and average only 2.0 percent or slightly higher in 1987.

Developing Country Growth: Wait and Things May Improve

Severe debt financing problems and poor export earnings (brought on by low commodity prices and sluggish developed-country economies) are the principal reasons why real developing country growth is projected to drop 0.5 percentage points to 2.1 percent in 1987. However, hoped-for improvements in these underlying factors hint at a fairly strong rebound, with real 1988 growth currently forecast at around 3.7 percent.

Much of the projected slowdown in 1987 developing-country growth is concentrated in Latin America (3.7 percent growth in 1986, 1.4 percent in 1987), particularly Brazil (8.2 percent growth in 1986, 0.4 percent in 1987). In addition, the oil-exporting countries are not expected to show any growth in 1987, though this would still represent an improvement over the 2.1-percent contraction of 1986. Not surprisingly, the 1988 rebound comes from Latin America (2.7-percent growth, with Brazil growing at 2.9 percent) and the oil-exporting countries (3.0 percent).

The collapse of petroleum prices caused the economic contraction of oil-producing countries in 1986, and is the main cause of their expected stagnation in 1987. But oil prices have recovered dramatically from their 1986 third-quarter lows, suggesting that oil-producing nations will experience much improved growth in 1988. The debt crisis and the return of inflation are the chief brakes on Brazil's economy in 1987, with all non-government sectors of the economy in decline. As (if) these problems are worked through, Brazil (and by extension the Latin American region) should be able to generate a modest recovery in 1988.

Commodity Prices: A Blow to Developing Country Prospects for Now

Low commodity prices have been particularly damaging to the economic performance of the developing economies. Measured by the IMF's index for commodities excluding fuels, prices have declined some 30 percent since 1980, while the IMF's food index declined around 40 percent. However, since

around third-quarter 1986 there has been some small reason for optimism in that the rate of decline in the prices of many commodities (such as agricultural products) has slowed or stopped, while for others (such as metals) prices are on the rise. It should be emphasized that commodity prices, on the whole, remain well below their nominal 1980 levels. More importantly, commodity prices continued declining in real terms and are near or at Depression-era levels. But, all in all, the movement in nominal prices may point to some positive effects for the future, with the IMF expecting the dollar prices of non-fuel commodities exported by developing countries to bottom out in 1987, and to rise around 4.5 percent (1.5 percent in real terms) in 1988.

Oil Prices Fluctuate

Over the last 3 months, oil prices advanced to over \$22 per barrel for West Texas Intermediate and \$20 for North Sea oil, and then retreated back below \$20. Much of this movement may well be a response to geopolitical concerns and not supply and demand, and prices remain significantly above the lows experienced during 1986. Oil prices are expected to remain around \$18 per barrel for 1987 and 1988, and will be the chief contributor to the expected improvement in the 1988 economic performance of the oil-exporting countries. Barring further

World and regional economic growth

Calendar Year	1984	1985	1986	1987	1988
					Percent change
World	4.1	3.0	2.8	2.6	3.0
United States	6.6	3.0	2.9	2.9	3.6
World less U.S.	3.2	3.0	2.7	2.5	2.7
Developed countries	4.5	3.1	2.6	2.4	2.8
Less U.S.	3.4	3.3	2.4	2.2	2.3
EC-12	2.3	2.4	2.4	2.1	2.2
Japan	5.1	4.7	2.5	2.5	2.7
Developing countries	3.1	2.5	2.6	2.1	3.7
Oil exporters	1.3	-0.1	-2.1	0.2	3.0
Non-oil exporters	4.4	4.2	5.8	3.5	4.1
Latin America	3.3	3.6	3.7	1.4	2.7
Africa & Middle East	1.1	0.1	-1.2	0.1	3.3
Asia	5.4	4.0	5.8	5.5	5.3
Centrally planned countries	3.7	2.9	3.9	3.6	3.4

Sources: IMF, Wharton Econometrics, ERS.

scares from the Persian Gulf, however, the risk to this forecast is on the downside. Demand is being met, at least to some extent, from inventories, and OPEC, which had wanted to produce 16.6 million barrels per day, is now estimated to be producing at the 20-million level.

Dollar Exchange Rates

Increases in commercial U.S. interest rates, starting in mid-April, have supported the dollar fairly well during the summer from declines suffered in January. Interest rate differentials favoring the dollar, as well as political tensions in the Persian Gulf, strengthened the dollar slightly over the summer until announcement of poorer-than-expected U.S. trade statistics for June and July led to market reaction against the dollar. The September 4 increase in the U.S. Federal Reserve discount rate, from 5.5 to 6.0 percent, should help buoy the dollar, as well as help restrain U.S. inflationary price increases. U.S. interest rates are likely to remain above their recent lows from the beginning of this year.

Stable Dollar Management Continues

The dollar's value against other major currencies is likely to continue to be managed assiduously by the G-7 industrial countries following their Louvre Accord in February and further agreement in April. The dollar has traded within fairly narrow ranges against major European currencies since spring. Despite somewhat greater fluctuation against the Japanese and Canadian currencies, the dollar has also remained on average near the more stable currency values instigated by concerted central bank action.

News of poorer-than-expected U.S. trade deficits of \$15.7 billion for June and \$16.5 billion for July led to a market reaction against the dollar in mid-August, although this reaction was somewhat more guarded than the virtually unchecked reactions to similar announcements last year. While further reaction may be forthcoming after summer holidays end and fuller-scale trading resumes, policy adjustments in the major industrial countries—exemplified by the increase in the U.S. discount rate—along with concerted central bank intervention are likely to contain occasional declines in the dollar, barring

unforeseen circumstances. However, events capable of a sustained adverse impact on U.S. trade—enactment of trade legislation with what is seen as "protectionist" language, an uninterrupted worsening of U.S. trade in coming months, markedly slower German or Japanese growth, or an outside economic shock such as a sudden oil price rise—are situations that could lead traders to overcome government currency interventions.

Currency Adjustments in Developing Countries

Should the dollar continue stable, developing countries—many of which gear their currencies to those in industrial countries—may begin to review their economic and currency policies in light of the dollar's lower level. Prospects in major U.S. agricultural markets in Latin America are likely to continue poor, with high inflation and heavy debt burdens generally weakening their purchasing power in real terms. Mexico, last year in particular, and Brazil, more recently following the collapse of its Cruzado Plan in December 1986, have both suffered from rapid inflation. Debt rescheduling following the Austral Plan in Argentina, conversely, appears to have steadied the Argentine currency somewhat more in real terms.

Stronger currencies in major developing country markets in Asia provide better prospects, with both the South Korean won and the New Taiwan dollar in particular continuing to strengthen steadily. U.S. officials, however, continue to press these countries for more substantial currency realignments in light of the sizable dollar reserves in Taiwan and last year's Korean trade surplus. [Tim Baxter and Ted Wilson (202) 786-1689]

U.S. AGRICULTURAL TRADE

U.S. agricultural exports are expected to increase in fiscal 1987 as trade volume and market shares expand for major commodities. The volume of U.S. agricultural exports will rise for the first time in 7 years, rebounding to 129 million tons after falling 15 million tons in fiscal 1986. Value will climb after the steep decline of recent years (see cover chart), but only by \$1.7 billion to \$28 billion, because lower prices will partly offset increased volume.

Most of 1987's volume gain has been in coarse grains as competitors' supplies weaken. Dry weather in Argentina reduced the availability of corn for export about 4 million tons, and production problems in Australia and Thailand reduced coarse grain exports to the lowest levels of the last 4 years. In China, continued strong gains in grain consumption have begun outpacing production, resulting in a 5-million-ton net decline in coarse grain exports this year. The United States is gaining not only by increasing grain sales to China's customers, but also perhaps doubling total agricultural exports to China in fiscal 1987.

The Export Enhancement Program (EEP) will also boost U.S. exports this year, mostly through wheat sales. The largest sale under the program to date was 4 million tons of wheat to the USSR, raising the volume of U.S. grain sales there despite continued good grain production in the Soviet Union. The total volume of U.S. wheat exports is expected to increase about 3.5 million tons in fiscal 1987. However, value is expected to fall as the lower prices necessary to boost market share offset volume gains. The average export unit value of wheat sold to the Soviet Union during the first 9 months of fiscal 1987 was \$79 per ton, while in the comparable period of 1986 it was \$125 per ton.

While increased world grain trade and U.S. market share help raise total export volume, similar changes in cotton sales will help boost total U.S. export value. In 1986, the United States saw its share of world cotton exports fall from 30 percent to 10 percent as world prices fell well below U.S. prices. With the initiation of the cotton marketing loan program, prices dropped 59 percent in a single month, and the United States subsequently recovered its traditional market share. In fiscal 1987, cotton export volume is expected to triple, raising value probably \$1 billion by the end of the year.

U.S. agricultural exports will also receive a boost from high-value products. Livestock product exports are expected to rise \$500 million to \$4.9 billion in fiscal 1987. U.S. promotion efforts will play a role, increasing beef sales to Brazil as part of the Dairy Termination Program and poultry meat sales through the EEP. However, the low value of the dollar and greater import demand in

Canada and Japan have also accounted for a substantial portion of the expected increase. Horticultural exports will rise \$500 million, virtually all because of more U.S. competitiveness in the market and added import demand. In addition, the USDA Targeted Export Assistance (TEA) Program is helping horticultural exports. The USDA is to spend at least \$110 million per year on the TEA Program in funds or CCC commodities during fiscal years 1986-88. A major portion of the targeted commodities in fiscal 1987 have been high-value products such as fruits, nuts, and vegetables.

Fiscal 1987 was the first entire year of exporting under the new commodity programs created by the 1985 Food Security Act. To regain competitiveness, U.S. prices were reduced through marketing loan programs, lower loan rates, and the EEP. In fiscal 1988, prices for some major export commodities are expected to be more favorable. This fact, combined with the increased share of world markets gained in 1987 and continued expansion of high-value exports, may mean further export gains. [Stephen MacDonald (202) 786-1621]

GATT TRADE TALKS AND U.S. AGRICULTURE

Trade ministers from 74 countries met September 15-20, 1986, in Punta del Este, Uruguay, to launch new multilateral trade negotiations (MTN), the eighth trade round since the first MTN in 1948. The contracting parties to the General Agreement on Tariffs and Trade (GATT) issued a declaration at the conclusion of the session, establishing the trade negotiating committee (TNC) charged with organizing and carrying out the new "Uruguay round" over the next 4 years.

The declaration sets out the trade round objectives, negotiating principles, subjects for negotiations, as well as addressing "standstill and rollback" (the halt and dismantlement of protectionist trade measures) under part I--trade in goods. In addition, new trade round subjects were addressed under part II--trade in services.

Overall MTN Objectives

The ministers declared that the overall negotiation objectives shall be:

1) Bring about world trade liberalization, especially for developing countries, by reducing and eliminating tariff and other trade barriers;

2) Strengthen the rules of the world trade system through more effective multilateral discipline and widened trade coverage under the GATT;

3) Improve the trading system by taking into account changing world trade patterns to include such subjects as high-technology products and the difficulties in commodity markets; and

4) Foster more cooperative interaction between governments' trade, monetary, and economic policies as they affect world growth and development.

Principles

The declaration's negotiating principles address both the overall negotiations and the special situation of the developing countries in the MTN. Notable is the principle that the MTN results should be considered a single undertaking, meaning that no one part needs be implemented in advance of all the MTN results (although individual countries may do so if they wish). Another principle concerns the "graduation" issue, where developing countries should expand their concessions as their economies develop and their trade situation improves.

Subjects

The United States sought to bring several priority issues to the negotiations, such as agriculture, as well as new subjects not yet covered by the GATT, such as trade in services, intellectual property rights, and trade-related investment. An additional priority issue sought by U.S. negotiators was to improve the functioning of the GATT dispute settlement process, which could improve existing world trade rules even without additional negotiation on specific subjects.

The subjects cited for negotiation under part I (trade in goods) are:

Tariffs, Non-tariff measures Natural resource-base products, Textiles and clothing, Agriculture Tropical products, Review of

GATT articles, MTN agreements and arrangements, Safeguards, Subsidies and countervailing measures, Intellectual property rights, Trade-related measures, Dispute settlement, Functioning of the GATT system

Negotiating Groups

Fourteen negotiating groups were organized by the above subjects, comprising the Group of Negotiations on Goods (GNG) which, along with the Group of Negotiations on Services (GNS) and the Surveillance Body, report to the Trade Negotiations Committee that oversees the conduct of the MTN.

In January, the TNC chaired by GATT Director-General Arthur Dunkel adopted negotiating objectives and a two-staged negotiating procedure for these groups so that deliberations could begin. The procedure consists of an initial phase and a subsequent negotiating process. The initial phase will typically examine and discuss during 1987 the issues and problems concerning a group, while the subsequent stage involves negotiating during 1988 the issues settled upon in the initial phase.

Agriculture in the Punta del Este Declaration

The trade ministers recognized in their declaration the need to prevent restrictions and distortions in agricultural trade, including those related to structural surpluses, to reduce imbalances in world agricultural markets. The declaration indicates further that GATT members will seek to liberalize agricultural trade and bring all measures affecting import access and export competition under strengthened and more effective GATT rules and disciplines. 1/

The negotiating group on agriculture retained Mr. Aart de Zeeuw of the Netherlands, previously chairman of the GATT Committee on Trade in Agriculture (CTA) which in 1982-84 carried out the initial examination of measures affecting trade in agriculture mandated by the contracting parties at their 1982 GATT ministerial meeting. 2/

1/ See *World Agriculture*, September 1986, p. 31.

2/ See *World Agriculture*, June 1987, pp. 28-29.

Group Agriculture Negotiating Objective

The negotiating group on agriculture adopted the following objective, similar to that in the Punta del Este Declaration:

"Contracting Parties agree that there is an urgent need to bring more discipline and predictability to world agricultural trade by correcting and preventing restrictions and distortions including those related to structural surpluses so as to reduce the uncertainty, imbalances and instability in world agricultural markets.

"Negotiations shall aim to achieve greater liberalization of trade in agriculture and bring all measures affecting import access and export competition under strengthened and more operationally effective GATT rules and disciplines, taking into account the general principles governing the negotiations, by:

- "(i) improving market access through, *inter alia*, the reduction of import barriers;
- "(ii) improving the competitive environment by increasing discipline on the use of all direct and indirect subsidies and other measures affecting directly or indirectly agricultural trade, including the phased reduction of their negative effects and dealing with their causes;
- "(iii) minimizing the adverse effects that sanitary and phytosanitary regulations and barriers can have on trade in agriculture, taking into account the relevant international agreements.

"In order to achieve the above objectives, the negotiating group having primary responsibility for all aspects of agriculture will use the Recommendations adopted by the Contracting Parties at their Fortieth Session, which were developed in accordance with the GATT 1982 Ministerial Programme, and take account of the approaches suggested in the work of the Committee on Trade in Agriculture without prejudice to other alternatives that might achieve the objectives of the negotiations."

Initial Agriculture Group Meetings

The first meeting (February 16-18) of the agriculture negotiating group was devoted to broad statements about major problems and causes affecting trade in agriculture, as provided for in the initial phase of the negotiating plan.

At the second meeting (May 4-5), delegations began presenting possible principles to govern world trade in agriculture. Australia presented a 3-point plan, reflecting the view of the Cairns Group of (self-proclaimed) non-subsidizing agricultural exporters. Australia called for (1) an end to government intervention in agricultural trade, (2) national agricultural markets that are fully open to world market prices, and (3) ending all distinctions between agriculture and other sectors under the GATT. The United States expressed similar views that import access for agricultural products should be expanded and that trade-distorting government policies that prevent farmers from competing against one another on the basis of market signals should end. The EC saw the outlined principles as a less-than-realistic basis for negotiating current agricultural problems. Other delegations such as Japan expressed the view that the special character of agriculture should permit consideration of non-economic reasons to support national agricultural sectors.

U.S. Proposal To Phase Out Farm Subsidies

At the third meeting (July 6-7), the United States presented its broad proposal for carrying out the three major objectives of the Punta del Este declaration concerning agricultural export measures, import access measures, and health and sanitary regulations.

The United States proposed (1) a 10-year phaseout of all agricultural subsidies that affect trade-- including a freeze and phaseout of quantities exported with export subsidy aid, (2) a 10-year phaseout of all agricultural import barriers, and (3) a harmonization of health and sanitary regulations affecting agricultural trade, including international guidelines for domestic production and processing methods.

Certain policies with negligible trade-distorting effects, however, would be

allowed: (i) direct income or other payments to the agricultural sector that are decoupled from production and marketing, and (ii) true foreign and domestic aid programs.

Once agreed upon, country commitments to reduce support would be equivalent to GATT bindings and would be reviewed annually to ensure the phasing in of parallel reductions in agricultural support.

Two-Tier Reduction Schedule

The U.S. proposal calls for a two-stage elimination of intervention support for agriculture. In the "first tier" of negotiations, GATT contracting parties would agree on which policies and commodities should be covered and how to measure the support they give to agriculture. In the "second tier," GATT members would set out national implementing plans and would agree to a timetable, reviewed annually, for the agreed removal of trade subsidies and barriers.

The U.S. proposal mentions one possible means for measuring support given to agriculture--the producer subsidy equivalent (PSE) approach. PSE's measure government budget outlays and other financial benefits to farmers, including the income benefit from restrictive border measures that result in differences between internal and external prices.^{3/}

Following agreement on policy and commodity coverage and measurement, governments would develop national implementing plans to reduce government support to agriculture. These plans would be reviewed annually to ensure parallel reductions in support during the 10-year transition period.

The proposal also calls for a form of "standstill and rollback" of agricultural support measures that would take account of government measures adopted since the Punta del Este declaration that help or hinder the declaration objectives to improve the world agricultural imbalance.

Lastly, the proposal suggests that domestic legislation on production methods and processing should be harmonized to

provide equivalent and "transparent" processes that would help reduce technical barriers to trade worldwide.

The text of the U.S. proposal begins:

"The following proposal is submitted by the United States to carry out the objectives of the Punta del Este declaration on agriculture.

"All participants should agree to the following:

- "o Agricultural Subsidies: A complete phaseout over 10 years of all agricultural subsidies which directly or indirectly affect trade.
- "o Export Subsidies: Freeze and phase out over 10 years the quantities exported with the aid of export subsidies.
- "o Import Access: Phase out import barriers over 10 years.
- "o Health and Sanitary Regulations: Insofar as animal, plant and human health and safety are not affected, harmonize health and sanitary regulations. In addition, base domestic regulations on internationally agreed standards and processing and production methods on equivalent guarantees."

The commodities covered would include all agricultural commodities, food, beverages, forest products, and fish and fish products. The policy coverage of the U.S. proposal would focus on policies that subsidize, directly or indirectly, agriculture. Policies to be reduced and eliminated would be:

- "o Market price support: policies such as price support, import quotas, variable levies, minimum import prices, tariffs, some state trading activities, export subsidies, export credits, Government support of marketing boards, interest subsidies associated with producer commodity operations, Government contributions to stabilization funds, and Government inventory costs.
- "o Income support: policies such as deficiency payments, storage

^{3/}See *World Agriculture*, this issue, pp. 14-15.

payments, stabilization payments, headage or acreage payments, and negative payments such as producer levies.

- "o *Other support:* policies such as subsidized crop insurance, concessional farm credit or interest subsidies, fuel and fertilizer subsidies, some capital grants, marketing programs (including transportation subsidies, processing subsidies and inspection services), research, advisory services, and structural investments."

Initial Reactions to U.S. Proposal

The U.S. proposal was generally welcomed as a major advance in the negotiations, although its contents would certainly take time to consider. Major countries, such as Argentina, Australia, Canada, the EC, Japan, New Zealand, and others, have noted their intention to make their own proposals later this fall. Nonetheless, the far-reaching U.S. proposal--particularly the elimination rather than the simple reduction of subsidies and import restrictions in agriculture--has provided other GATT members with a broadened perspective of the possible scope of the agricultural trade talks.

Not surprisingly, some initial reactions considered the proposal unrealistic, going "too far" in its elimination of trade-distorting measures in agriculture, with exceptions only for decoupled direct producer payments and legitimate aid programs. One such concern was that virtual free trade in agriculture might require stricter trade discipline and rules on world markets than presently applies to trade in industrial goods. Other concerns were that special aspects of agriculture, such as food security, geographical and climatic disadvantages, and wide disparities in average farm sizes, be taken into account in negotiations. More specific questions raised fragmentary issues such as whether the waiver concerning Section 22 quotas, granted to the United States by the GATT in 1955, was still "on the table" as it was not explicitly mentioned in the U.S. proposal. Another question was whether the United States itself was actually willing to accept its own proposal were all points to be approved in full by other GATT members.

While no formal responses have surfaced to the full U.S. proposal, in several preliminary comments, delegates queried whether more specific mention of developing countries and their preferential treatment might not be included. One participant wondered whether some smaller developing countries would feel strong enough to open their economies to the freer agricultural trade set out in the U.S. proposal and Australian principles. Others wondered whether more emphasis on the annual reduction plans might not be in order, although direct negotiated reduction of aggregate support measures such as PSE's was thought to be less likely than their analytic use for measuring agricultural support. The fourth group agriculture meeting is scheduled for October 26, 1987, when further reactions are likely. [Ted Wilson (202) 786-1688]

EUROPEAN COMMUNITY REDUCES SUPPORT PRICES FOR 1987/88

The EC Council of Agriculture Ministers agreed to a 1987/88 price package on July 1, after substantial delay. The package makes minor changes in support prices in European Currency Unit (ECU) terms, but changes in the implementation procedures for price support through intervention will lead to price reductions in national currencies, some of which will be offset by agrimonetary changes. While price reductions will be viewed as large by European producer groups, the effective reductions are small given the gap between EC and world prices.

Highlights of the package:

- o Intervention prices for common wheat and other feed grains remain the same, and durum wheat intervention prices are reduced with an offsetting increase in direct producer aids.
- o Official prices for rapeseed and soybeans are reduced 3- percent, while sunflower and olive oil prices remain unchanged. A 3- percent premium for double O rapeseed varieties will offset the price reduction.
- o A system of maximum quantities on which oilseed support will be

guaranteed is introduced. To the extent that forecast production exceeds the fixed maximum quantities, support prices could be reduced by as much as 10 percent for 1987/88, 15 percent in 1988/89, and 20 percent in 1989/90. Details of implementation are still being negotiated.

Effective grain and oilseed price support will be reduced by four other factors:

- o Purchases into intervention, similar to putting grain under loan in the United States, will be at 94 percent of the intervention prices;
- o Intervention will be made available later in the year than in the past, and only when the EC Commission determines that market prices have fallen below intervention prices;
- o The size and number of monthly increments in prices, designed to offset storage costs, will be reduced; and
- o Payments to intervention agents will be made later, leading to a further discount in the prices paid to producers.

Some of these reductions will be offset by agrimonetary adjustments, changes in "green" or agricultural exchange rates and Monetary Compensatory Amounts (MCA's), the border taxes and subsidies used within the EC to offset exchange rate differences among countries.

The full impact of the support reductions for 1987/88 will be felt only in West Germany and the Netherlands. Other countries have partially compensated for the effective reduction in official prices by devaluing the green rates that translate prices in ECU's into their national currencies.

For example, French wheat producers will see a 5.3-percent increase in initial intervention prices in French francs, and United Kingdom wheat producers will see a

4.65-percent increase in Pounds sterling, even though intervention prices remained the same in ECU's. However, the decision to buy grain into intervention at 94 percent of the intervention price will by itself result in a net local currency price reduction of 1 to 1.5 percent in those countries.

If actually implemented, planned modifications of the EC agrimonetary system beyond the announced adjustments would affect future price levels. After currency realignments, official support prices stated in green ECU are to be reduced in three steps over 3 marketing years to produce in national currencies what would have resulted from the pre-1984 system which denominated prices in standard ECU. Other provisions also require the elimination of intra-EC price differentials and MCA's among countries resulting from currency realignments, also over a 3-year period. The impact of these changes is unclear, since the EC Council can fix prices annually at any level, compensating for any effects of the system changes.

Percentage changes in EC support prices for 1987/88 compared with 1986/87 1/

Country	Changes in terms of--		
	ECU	National currencies 2/	
		Percent	Percent
West Germany	0	0	0
France	-0.2	4.2	
Italy	-0.6	3.3	
Netherlands	0	-0.5	
Belgium	0	1.7	
Luxembourg	0	1.6	
United Kingdom	0	6.5	
Ireland	0	8.6	
Denmark	0	2.3	
Greece	-0.4	13.3	
EC-10	-0.2	3.4	
Spain 3/	1.4	7.2	
Portugal 3/	0.3	8.6	

1/ Weighted average taking into account relative importance of the different products. 2/ Including the effect of agrimonetary adjustments made since the 1986/87 price decisions. 3/ Taking into account the effect of the alignment to common prices following accession measures.

Source: Agra Europe.

The agreement approving the price package permits temporary direct income aids in West Germany and the Netherlands during 1988 to compensate farmers for price reductions resulting from agrimonetary adjustments. More importantly, the possibility is established for future national social aids, decoupled from production, to compensate for future reductions in differences between the ECU and green ECU systems. Specific details are not yet decided.

The EC also hopes to deal with the problem of an expected deficit of \$5-7 billion

this year by having the Commission reimburse member states for actual spending, rather than providing cash advances for predicted expenditures on a monthly basis.

At the recent European summit, Prime Minister Margaret Thatcher said that some legally binding limits on agricultural spending will be a necessary precondition for agreement to expand the EC revenue base at the Copenhagen summit in December. [Mark Newman and Gene Hasha (202) 786-1720]

GOVERNMENT INTERVENTION IN AGRICULTURE: THE CASE OF DEVELOPING COUNTRIES

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Abstract: Developing countries play an increasingly important role in world agricultural trade, and they represent growth markets for agricultural exports. In spite of this, their role in current trade negotiations has not been clearly defined. This article examines the nature and implications for world trade of government intervention in agriculture in developing countries.

Keywords: Developing countries, less developed countries (LDC's), agricultural trade, subsidies, PSE's.

The importance of agriculture in the current round of multilateral trade negotiations offers an opportunity for developing countries (LDC's) to participate more fully in negotiations than ever before. The priority attached to agricultural trade issues encourages LDC participation because agriculture's role is more important in many developing economies than in industrial market economies (IME's). Primary commodity exports other than fuels, minerals, and metals accounted for 21 percent of all LDC exports in 1985. These same exports were only 13 percent of IME exports. In Argentina, agricultural exports comprised about 77 percent of total exports in 1985, while in Brazil they were about 44 percent. Value of agricultural production accounted directly for 20 percent of gross domestic product (GDP) of LDC's in 1985, and only 3 percent in IME's (16). 1/

1/ Numbers in parentheses refer to sources listed at end of article.

Some sectors in LDC's could gain from negotiations aimed at reducing agricultural trade barriers and subsidies in a number of ways. If negotiations lead to lower import barriers for agricultural commodities, LDC exporters will have greater access to IME markets. If negotiations reduce subsidization of agriculture, particularly exports, LDC's may face less competition in agricultural export markets. For example, the European Community (EC), due to its system of farm supports, has switched from being a major importer of Argentine beef to being a major competitor in the beef export market. Reducing protection to agriculture on a world basis would result in generally higher international commodity prices (9, 10, 11). 2/ For LDC agricultural exporters, these price

2/ Protection raised prices domestically in IME's, reducing domestic consumption and passing increased production onto international markets.

impacts could translate into substantially higher foreign exchange earnings (17). For LDC farmers, these price impacts could translate into higher incomes, providing a stimulus to general economic growth.

Agricultural importers in LDC's may view the potential impacts of trade negotiations in a less positive light than agricultural exporters. If protection of agriculture in IME's has depressed world prices, then these policies have subsidized LDC food imports. Nonetheless, many LDC's that depend heavily on food imports also have large agricultural sectors that have been adversely affected by low world prices. Persistently low world prices may have harmed LDC agricultural growth rates (and, consequently, economic growth rates) and made it prohibitively expensive for some countries to obtain politically desirable levels of food self-sufficiency. Recent research has shown that the current forms of agricultural support worldwide have contributed to world commodity price instability, making it more difficult for LDC's to predict foreign exchange requirements and availabilities (11).

From the viewpoint of IME's, greater participation of LDC's in this round of agricultural trade negotiations is desirable. LDC's play an increasingly important role in world agricultural trade, and they represent growth markets for agricultural exports (6). Developed countries desire greater access to these markets and should be prepared to make concessions to LDC's in order to obtain it. Furthermore, LDC's are such important traders in many world commodity markets that an agreement not sanctioned by them may not be meaningful and lasting.

Despite the potential importance of LDC's in the trade negotiations, their role has not been clearly defined. This is in part because the negotiating framework for agriculture has not yet been clearly determined. Past negotiations were based on the offer-request framework. Agreements were usually made on a bilateral, commodity-specific basis. The benefits of the concessions were shared with other members of the General Agreement on Tariffs and Trade (GATT) through the most-favored-nation rule. LDC's participated relatively little in this exchange of concessions, instead preferring to seek the

"special and differential treatment" that the GATT allows them (16). In obtaining special and differential treatment, LDC's were not required to extend reciprocal concessions to IME's but, consequently, IME's were less interested in offering concessions to LDC's. Agreements in earlier rounds benefited principally the United States, Japan, and the EC (5).

The current round of agricultural trade negotiations could proceed along very different lines. Many countries, led by the United States, have expressed an interest in an across-the-board agreement that would limit all government support to agriculture through reducing trade barriers and limiting all subsidies, both direct and indirect, that affect agricultural trade (4).

The possibility of a multilateral agreement such as that suggested by the United States raises a number of questions about LDC participation. Should LDC's be required to roll back their own support to agriculture at the same time and to the same degree as IME's? Should higher-income LDC's participate to a greater degree than lower-income countries? How should intervention in agriculture be handled in the context of the negotiations where it taxes producers? How different are the implications of agricultural policy reform in LDC's compared to IME's? The importance of agriculture in many LDC's suggests there could be profound political and economic consequences of policy changes.

An examination of the above issues requires an understanding of the nature and implications of government intervention in LDC agriculture. A number of studies have investigated this area, including one by the Economic Research Service (ERS) on trade liberalization that compares producer and consumer subsidy equivalents (PSE's and CSE's) for 16 developed and developing countries and the EC in grain, oilseed, livestock, dairy, cotton, sugar, and selected other commodity markets (12, 13).

A PSE is defined as an estimate of the amount of cash subsidy needed to compensate farmers for the removal of all government support. A PSE can be positive or negative, a negative number implying that the net effect of government programs is to tax farmers. A

PSE for a particular commodity is often expressed as a percent of the value of production of that commodity, facilitating cross-country and cross-commodity comparisons. In contrast to the widely used measure called nominal rate of protection, the PSE framework is designed to capture the producer subsidy component of all forms of government intervention in agriculture, including domestic policies such as input subsidies and trade barriers. Nominal rates of protection indicate only the extent to which trade barriers or pricing policies drive a wedge between prices received by producers (or consumers) and the relevant trade reference prices.

Do LDC's Tax Agricultural Producers?

The ERS study indicates that a principal difference between government intervention in the agricultures of developed and developing countries is that producer support in IME's is positive, while that in LDC's is negative (that is, it amounts to taxation of agriculture). Other studies support this finding. Nonetheless, it is also clear that support ranges from high levels of positive support in some LDC's to substantial taxation in others. There are also widespread differences within countries among the levels of support to different commodities.

Byerlee and Sain reported nominal protection coefficients for wheat for 31 developing countries for the early 1980's. They found that in 12 of 31 cases the protection coefficients were less than one, indicating that the effect of government intervention in wheat markets was to depress producer prices relative to border prices. When these coefficients were adjusted for the implicit taxation of overvalued exchange rates, 20 of the 31 countries taxed wheat producers (2).

In an earlier study, Bale and Lutz found that nominal rates of protection for wheat, rice, corn, beef, cotton, sugar, and rubber in Argentina, Egypt, Pakistan, and Thailand were negative in all cases except corn and sugar in Thailand (1). The *World Development Report 1986* also reported nominal protection coefficients for a wide range of developing countries in wheat, rice, peanuts, corn, sugar, beef, tea, cocoa, coffee, tobacco, rubber, and cotton markets. Taxation of producers tended

to be higher and more widespread for the traditional export crops, but producer taxation was found in the other commodity markets as well. Several middle-income countries, including South Korea, Portugal, and Thailand, were found to have nominal protection coefficients significantly greater than one for some commodities (wheat and rice in South Korea, beef in Portugal, and sugar in Thailand) (15).

The ERS study includes PSE's for Argentina, Brazil, India, Indonesia, Mexico, Nigeria, South Africa, South Korea, Sudan, Taiwan, and Thailand, although commodity coverage varies by country. The net effect of government programs during 1982-84 was found to tax producers of at least some crops in Argentina, Brazil, India, Indonesia, Nigeria, and Sudan. For some crops in these countries, the PSE's were positive despite policies that taxed producers because policies that provided positive assistance offset the taxing effect. The net effect of government assistance to all commodities was positive in Mexico, South Korea, and Taiwan.

Why Do LDC Governments Tax Agriculture?

LDC governments tax agriculture for a number of reasons. One reason is revenue generation. For example, in Argentina—where agriculture accounts for 80 percent of foreign exchange earnings—agricultural export taxes account for 15 percent of central government revenues (14).

Another reason is to encourage agricultural processing industries by taxing exports of the raw product. For example, Brazil taxes soybean exports at a higher rate than it taxes exports of soybean products. The export taxes depress the domestic prices of the beans, providing an input price subsidy to the domestic crushing industry. Mexico has also taxed or limited cotton exports to encourage supplies for its domestic textile industry.

A third reason for taxing agricultural producers is to provide low-priced food supplies to urban consumers. This approach has been important in Nigeria, where large food imports were encouraged by a strongly overvalued currency in the early 1980's. Most imports were consumed by wage-earning

urbanites who appeared to control the government's trade policy. An overvalued currency was also an important food policy in Mexico prior to 1982.

How Do LDC Governments Tax Agriculture?

LDC governments tax agricultural producers through a number of mechanisms, explicit and implicit. Border taxes, quotas, and trade licensing requirements are direct techniques used in Argentina, Brazil, Mexico, and Nigeria. Marketing boards that buy crops at lower-than-border prices are found in India, Sudan, and, until 1987, Nigeria.

An important implicit form of taxation is through the official exchange rate system. By fixing nominal exchange rates, many LDC's have maintained overvalued currencies, resulting in lower prices of traded goods (expressed in domestic currencies) than would prevail under more flexible exchange rate regimes. This system taxes producers and subsidizes consumers of traded goods. The ERS study indicates that during 1982-84 an overvalued currency was an important source of taxation in Brazil, Nigeria, South Africa, and Sudan. A major devaluation of the Mexican currency in 1982 produced an undervalued currency and an implicit subsidy to agricultural producers.

Do Input Subsidies Offset Producer Taxes?

Many LDC's assist farmers through subsidies on purchased farm inputs and farm credit. This assistance is sometimes justified because it offsets the negative effects on farm income and output resulting from the tax policies. Farm input subsidies are important in many LDC's, and may counteract the effect of tax policies. In Brazil, the values of production and marketing credit subsidies were important enough to offset (on average) the negative value of export taxes, export quotas, and exchange rate policies. On a crop-by-crop basis, the balance was tipped toward positive assistance for Brazilian producers in the cases of wheat, cotton, poultry, and dairy.

In Mexico, input subsidies were also very important sources of producer assistance. Fertilizer and credit subsidies accounted for approximately 40 percent of the total value of

measured transfers to producers of wheat, corn, soybeans, sorghum, and cotton. In the cases of wheat and cotton, positive assistance through these input subsidies offset the negative effects on producer prices of Mexico's import and export policies. In Thailand, the value of irrigation subsidies to rice producers offset the revenue lost through export taxes, although the policies redistributed value within the sector.

Do Food Grain Policies Differ from Export Crop Policies?

Like the *World Development Report 1986*, the ERS study indicates a tendency for LDC's to treat export crop producers less favorably than import-substitution crop producers. For example, in Nigeria, the highest level of producer taxation as a percent of commodity value was found for cocoa, the country's major agricultural foreign exchange earner. On the other hand, the PSE for wheat, an important import-substitution crop, was positive.

In Brazil, soybeans and beef, major export commodities, were taxed through the combined effects of government programs while the production of wheat and rice, important food imports, was heavily subsidized. PSE's for Mexican commodities were positive during 1982-84. However, the lowest level of support went to cotton, the one Mexican export crop included in the analysis, while the highest level of support was for corn, an import-substitution crop and the staple of the Mexican diet. In Mexico, this pattern reflected the country's interest in limiting its dependence on food imports, particularly corn. India provided positive assistance to producers of high-value products like peanuts and rapeseed and soybean oils. The commodity taxed at the highest level in India was cotton, the one Indian export crop included in the study (8).

Do Higher-Income LDC's Treat Agriculture Differently from Lower-Income LDC's?

Nominal protection coefficients for agriculture are positively related to per capita income. This is because agricultural protection becomes affordable at high levels of per capita income and agriculture is an important source of revenue at low levels of per capita income (7). Middle-income economies like Colombia, Côte d'Ivoire,

Mexico, South Korea, Thailand, and Turkey tend to provide higher price protection (or lower taxes) to their producers than low-income economies like Bangladesh, India, Malawi, Pakistan, and Tanzania (15). Although the ERS study includes only a limited set of LDC's, it lends credence to the theory that support to agriculture increases as countries move up the income scale. Among the LDC's studied, positive levels of producer assistance were found in Mexico, South Africa, South Korea, and Taiwan. South Korea and Taiwan maintain agricultural trade policy regimes similar to Japan's highly protective system (3). Through state control of trade, both

countries maintain domestic prices well above border prices. Following South Africa, these two countries have the highest per capita GDP's in the sample. Countries studied where negative protection dominates include India, Nigeria, and Sudan, all at the lower end of the per capita income scale.

Studies of protection in LDC agriculture reveal several results of interest to the United States in the context of its participation in the current agricultural trade negotiations. First, the evidence that countries increase agricultural protection as their national incomes increase suggests that GATT

Country rankings by PSE's, 1982-84

Commodity	Ratio of PSE to commodity value--		
	Positive 1/	Small 2/	Negative 3/
Wheat	Brazil		Argentina
	Mexico		India
	South Africa		Nigeria
	South Korea		
	Taiwan		
Corn	Mexico	Brazil	Argentina
	South Africa	Nigeria	
	South Korea		
	Taiwan		
Rice	Brazil	Thailand	India
	Nigeria		Indonesia
	South Korea		
	Taiwan		
Sorghum/ barley	Mexico		Argentina
	South Korea		
Soybeans	Mexico		Argentina
	South Korea		Brazil
	Taiwan		India
Rapeseed & peanuts	India		
Cotton	Brazil		India
	Mexico		Nigeria
			Sudan
Beef, poultry, & dairy	South Korea	Brazil	
	Taiwan		
Pork		South Korea	
		Taiwan	
Sugar	South Africa		Nigeria
	Taiwan		
Cocoa			Nigeria

1/ Ratio is plus 0.1 or larger. 2/ Ratio is between minus 0.1 and plus 0.1.
 3/ Ratio is minus 0.1 or smaller.

Source: ERS calculations.

Annual average value of transfers to producers by policy type, 1982-84 1/

Country	Per capita	Overall	Input	Output	Exchange	Total
	GDP 2/	PSE	policies	policies	rate	transfers
Dollars Percent						Million dollars
Taiwan	3,097	3/	18	1	522	NM 523
South Korea	2,150		60	374	4,494	NM 4,868
Argentina	2,130		-22	0	-585	NM -585
Mexico	2,080		37	522	288	391 1,201
South Africa	2,010		24	146	758	-303 601
Brazil	1,640		4	1,821	-748	-535 538
Thailand	800		0	76	-66	NM 10
Nigeria	800		-47	73	71	-1,335 -1,191
Indonesia	530		-13	284	-1,037	NM -753
Sudan	300		-11	1	34	-70 -35
India	270		-19	904	-5,484	NM -4,480

NM = Not measured. 1/ Commodity coverage varies by country. 2/ Source: (16).
 3/ Source: International Monetary Fund.

Source: ERS calculations.

negotiations which include LDC's offer an opportunity to halt this trend. Second, the importance of input policies as a means of offsetting LDC producer taxes suggests that a GATT agreement to reduce all subsidies (as opposed to just subsidies through border policies) could pose special adjustment problems for LDC's. This is particularly true where the implementation of such an agreement is not accompanied by policy changes designed to reduce the taxing effects of other agricultural and exchange rate policies. Finally, this GATT round sets the stage for an alliance between the United States and LDC's aimed at restoring an agricultural trade environment in which U.S. agricultural exports could prosper directly, through the reduction of world agricultural protection, and indirectly, through economic growth in LDC's.

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HOW CONSUMERS ARE AFFECTED BY GOVERNMENT INTERVENTION IN AGRICULTURE

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Abstract: All nations intervene in their food and agricultural markets. But while in many developed and newly industrialized countries governments attempt to help producers through domestic farm programs, in low-income countries food and agricultural policies often reflect a dominant consumer welfare concern. The consumer, as the end link in the food chain, is the ultimate beneficiary (positive or negative) of food policies.

Consumer-oriented policies can distort market signals in much the same fashion as producer-oriented policies. A policy environment that allows consumers to adjust to changing market signals is equally as important as producer adjustments in the "liberalization" of world food and agricultural markets.

Keywords: Government intervention, consumer subsidy, consumer tax, consumer prices, food policies, agricultural policies, CSE's.

Much of the attention paid to government intervention in agriculture has focused on support of and protection to producers. Relatively little has been said about the implications for consumers. Some policy instruments, such as tariffs, import quotas, and variable levies, protect producers and permit producer prices higher than prevailing world market prices. Consumers bear the cost of these policies because they must then pay prices that exceed world market prices. Other policy instruments, such as deficiency payments, represent direct transfers from taxpayers to agricultural producers and have only a marginal impact on consumer prices.

Included in the "subsidy equivalent" framework is the capability to calculate consumer subsidy equivalents (CSE's). CSE's are like a mirror image of PSE's, estimating the level of subsidy that would have to be paid to *consumers* to compensate them for removing food and agricultural programs. CSE's generally capture the effect on consumers of policies that separate domestic and external prices. They are expressed as a ratio between the total value of policy transfers to consumers and total consumer expenditures for the food commodity. Like PSE's, CSE's can be positive, indicating a subsidy to consumers, or negative, indicating a tax on consumers.

To a large extent, CSE's are a byproduct of policies designed primarily to assist

producers. In other words, an implicit consumer tax (negative CSE) can result from government policy mechanisms that provide assistance to producers (positive PSE). For example, the level of market price support for producers from a quota on imports can be converted to the appropriate level of the marketing chain and then multiplied by domestic consumption to obtain the value of market price support that enters the consumer subsidy (tax) calculation. The CSE is negative (representing a consumer tax) for products with import barriers, export subsidies, or high internal prices relative to world prices. Export taxes or export quotas imply positive CSE's (representing consumer subsidies). An overvalued currency results in an implicit subsidy to consumers of traded products, while an undervalued currency results in an implicit tax to consumers of traded products. CSE's may be either positive or negative for products under a two-price system, depending on the relationship between domestic and world prices.

Consumer Subsidies (Taxes) Differ by Commodity and Country

High producer subsidies often imply high consumer taxes in the form of high food prices. In practice, however, the adverse effects on consumers resulting from producer price supports are frequently offset by direct government subsidies to consumers.

For example, in Japan, Taiwan, South Korea, and Canada, consumer taxes on wheat during 1982-84 were smaller than producer subsidies to wheat producers (figure 1). In Japan, Taiwan, and South Korea, the implicit tax on consumers was reduced by importing lower-priced wheat. In Canada, producer input subsidies and direct income payments affected the value of PSE's, but were not reflected in CSE's. Canada has a two-price wheat policy, but it had no measurable effect on producers or consumers during the 1982-84 study period. In Australia, a two-tiered price system that discriminates against domestic prices led to a moderate consumer tax. The net effect of the various agricultural policies in Argentina and India was to tax wheat producers, thus providing an implicit subsidy to wheat consumers. While the Government of Nigeria provided substantial assistance to wheat producers, an overvalued currency lowered the price of imported wheat and effectively provided a consumer subsidy.

Rice consumers, like wheat consumers, were subsidized at low levels in several of the developing countries--India and Nigeria. Consumers in Japan and South Korea were heavily taxed through high domestic prices and tight import controls. Taiwan's consumers were taxed at moderate levels, as were Australian consumers. EC consumers were taxed as well, but at relatively low levels.

Except Nigeria, all the sugar-producing countries for which PSE's were calculated provided some positive level of producer assistance. As a result, most of the world's sugar consumers were taxed through policies designed to assist producers. These tax levels were relatively low in Canada, higher in Australia and the EC, and exceeded 50 percent of consumer expenditures on sugar in the United States and East Asia.

Nearly as burdensome as the implicit tax on most sugar consumers was the level of tax on consumers of dairy products. The consumer subsidy (tax) calculations reveal that dairy product consumers were taxed in all cases considered. In some countries, however, implicit consumer taxes were less than producer subsidies because of offsetting programs, such as fluid milk subsidies in New Zealand, and school milk subsidies and other subsidies in conjunction with welfare programs in the EC and the United States. Consumers

of dairy products in South Korea were implicitly taxed at levels exceeding 75 percent of the value of consumer expenditures on milk.

Stage of Development Makes a Difference

Policies of the developed and newly industrialized countries have generally favored both higher producer and consumer prices. Consumer taxes on the commodities studied tended to be highest in Japan, South Korea, and Taiwan--countries that were typically labeled "growth markets" in the 1970's. CSE's for the EC, Australia, Canada, and the United States were typically lower than for the East Asian countries. There was a wide range of CSE values for the United States: sugar consumers were heavily taxed, and dairy and meat consumers were lightly to moderately taxed. CSE's were not estimated for U.S. consumers of grains and oilseeds since they pay world market prices. However, to the extent that U.S. price and income support programs influence world price levels, U.S. consumers of grains and oilseeds are likely affected in some fashion.

Consumer subsidy equivalents were often positive in LDC's. An important and often ultimate objective of food policy is the provision of adequate food supplies. In the developing countries, a well-nourished population is an intermediate objective of economic development and governments often implement programs targeted to achieve this objective. Many developing countries have an interest in ensuring that urban consumers pay prices that do not impose hardship. Because grains constitute the bulk of food consumption in most developing countries, government intervention has tended to subsidize consumption of grains, often at the expense of low producer prices. Argentine consumers were subsidized through export taxes, which depress domestic prices relative to export prices. Indian consumers received price subsidies through the activities of state trading or distribution enterprises. Nigerian consumers received an implicit food price subsidy through the maintenance of overvalued currencies.

Consumer-Oriented Policies and Trade Negotiations

The question of what balance should prevail among the interests of agricultural

producers (framed in terms of producers' prices or income), consumers (in terms of retail food prices), taxpayers (in terms of taxes), and governments (in terms of budgetary expenditures) in designing agricultural and food policies is a thorny political question. Most governments are pushed to strike a balance reflecting the alignment of domestic political and economic forces.

In the developed countries, the balance tends to have a dominant producer welfare element, while for many of the low-income developing countries the balance seems to be heavily weighted by a concern for consumer welfare, particularly urban consumer welfare. In both developed and developing countries, the consumer, as the end link in the food chain, is the ultimate beneficiary (positive or negative) of food policies.

The agricultural and trade policies of major food exporting and importing countries will affect future production and consumption. Changes in consumer-oriented or producer-oriented food policies can directly affect the sensitivity of the supply/demand response to economic variables.

Consumer-oriented food policies, or policies that have a positive CSE, tend to encourage artificially high levels of consumption. The policies distort the normal income/demand relationships by altering effective incomes or prices. Direct food subsidies are most prevalent in the developing countries. Egypt, for example, maintains a large-scale subsidy program. Bread, sugar, tea, cooking oil, rice, red meats, poultry, dairy products, and other food items are sold at low prices to consumers. Such official pricing systems, in use in many developing countries, usually respond slowly, if at all, to changing world market conditions. Consumer-oriented policies, then, can impede market adjustments in much the same fashion (and perhaps magnitude) as producer-oriented policies.

A multilateral attempt to negotiate a reduction in government intervention in food and agricultural markets is underway. A policy environment that allows consumers to receive clear market signals would seem equally important as producer adjustments in an equation for "liberalization" of world food and agricultural markets.

Figure 1
Producer and Consumer Subsidy Equivalents: Wheat

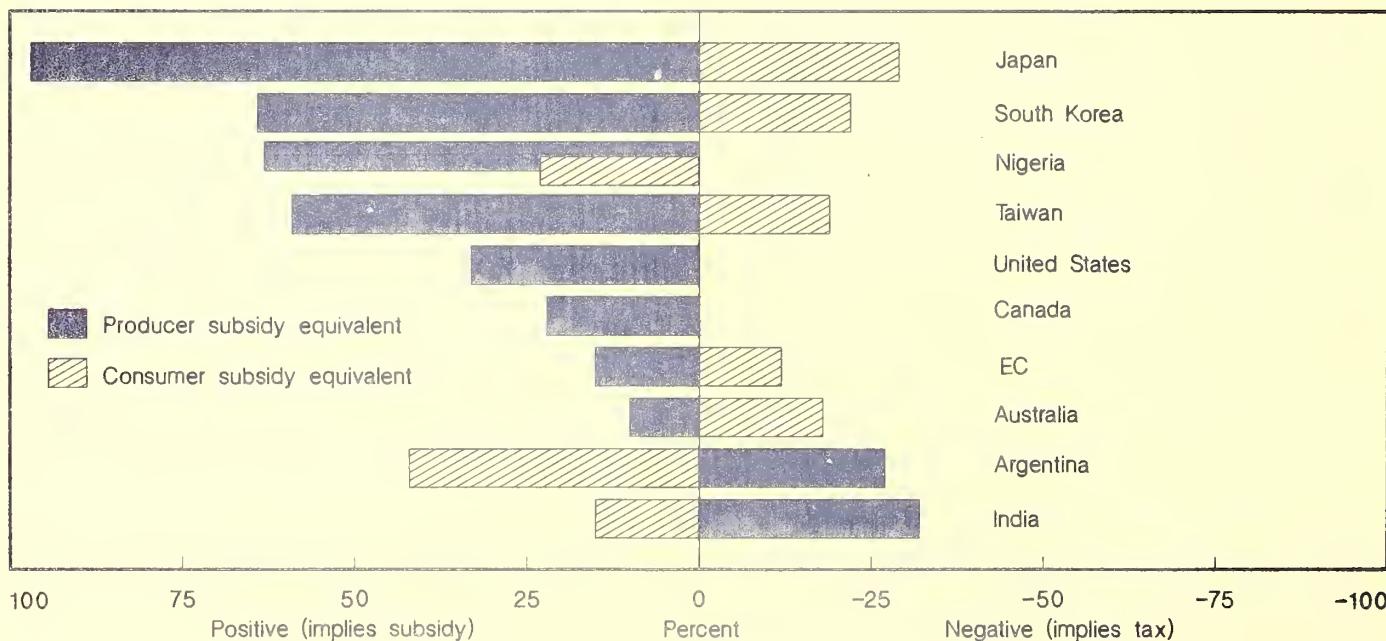


Figure 2

Consumer Subsidy Equivalents: Rice

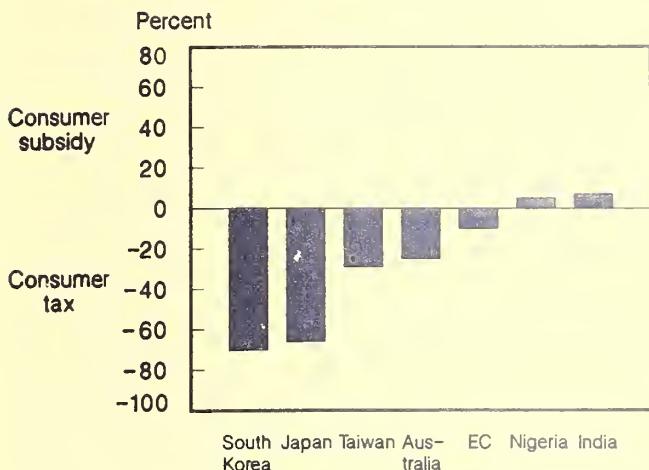


Figure 3

Consumer Subsidy Equivalents: Sugar

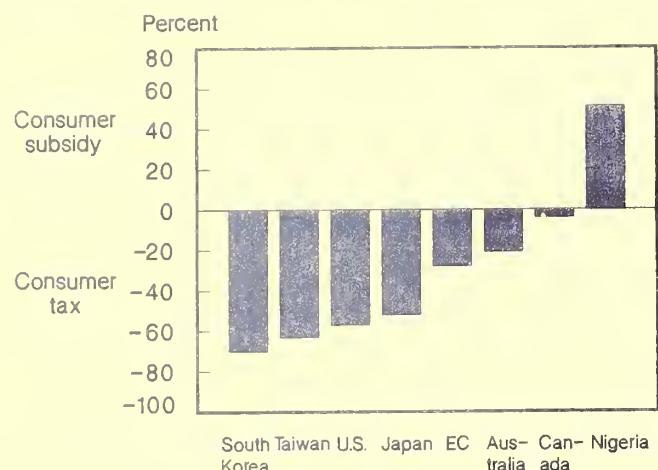
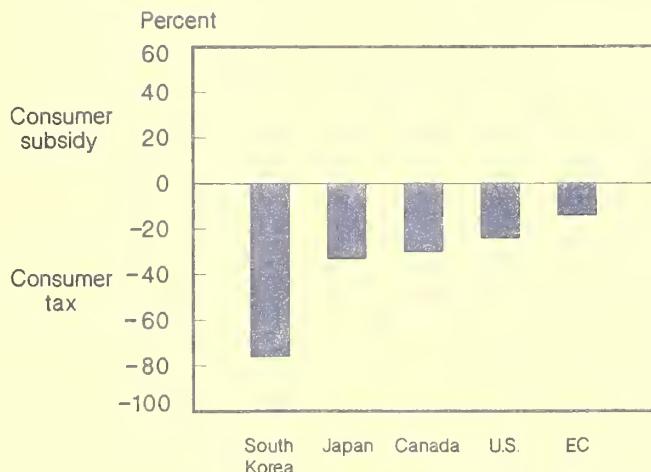


Figure 4

Consumer Subsidy Equivalents: Milk (Fluid)



THE RUSSIANS HAVE AGRICULTURAL SUBSIDIES, TOO

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Abstract: The Soviet Union spends about \$60 billion a year to subsidize its agricultural production, and a further \$89 billion a year to subsidize consumer prices of meat, dairy products, and other foods. The magnitude of Soviet subsidies has been cited as an argument for radical reforms of the economic system.

Keywords: Subsidies, Soviet agriculture, state planning, imports.

Budgetary subsidies for agriculture in the Soviet Union result from familiar political issues and national objectives, like increased farm income, self-sufficiency, and stable retail food prices. But in the Soviet Union, unlike many OECD countries, subsidies have not caused surpluses. Instead, there have been persistent internal shortages and large net imports. For this reason, growing Soviet agricultural subsidies have called into question not only policies and objectives, but the Soviet system of agricultural planning itself.

The accompanying table shows Soviet state subsidies to farms and consumers during 1961-1985. These data are published only sporadically, and they are not complete, but the table does illustrate the trends and composition of subsidies.

The current system of agricultural subsidies stems from decisions made under Leonid Brezhnev and Aleksei Kosygin. Their predecessor, Nikita Khrushchev, was deposed in late 1964, in part for failures of agriculture which had, among other effects, turned the Soviet Union into a net wheat importer.

Khrushchev had been reluctant to devote resources to agriculture, relying instead upon "easy" (and, some thought, hare-brained) schemes. These included the genetics ideas of pseudo-scientist Trofim Lysenko and the campaign to promote corn cultivation to excess in northern regions where corn was unsuited.

In early 1965, there was a historic decision to greatly increase investment and monetary incentives for farm workers. Over successive 5-year planning periods, farm

investment increased from roughly 16 percent of the nation's total investment in 1950-65 to 28 percent in 1981-85. In 1977, the claim was made that of "all the investment made in socialist agriculture from the time of the revolution, 72 percent had been made since 1965." Claims such as this, which emphasized a virtual explosion of land improvement work, and of the large-scale provision of supplies of construction, machinery, and fertilizer were common--until nearly stagnant farm production in the late 1970's made them embarrassing.

Many industrial inputs also were made available to agriculture on a concessionary basis. In 1967, the first overall reform of industrial prices in nearly 20 years took place. Industrial prices are fixed by the state and were raised in an attempt to give all branches of the economy (many of which had operated at financial loss) a "normal" level of profitability.

However, the higher prices that were to be paid to producers of mineral fertilizer and farm machinery were not passed on to farms. The state budget made up the increase instead. This special treatment was repeated when the price of gasoline was doubled for other, non-farm users in 1978, and when wholesale prices were changed again in 1982.

The state provides land improvement (drainage, irrigation, liming, etc.) for farms at no charge. Unquantifiable subsidies are paid for natural gas and electricity used in agriculture.

The largest subsidy, though, is for retail prices. An estimated 58 billion rubles (\$89

billion) were spent on consumer subsidies in 1987, about three-fourths for meat and dairy products. This is approximately 13.5 percent of the entire state budget and equals one-third of total expenditures in state-run stores for food, or an average 200 rubles (over a month's pay) for every Soviet citizen.

State food prices have been controlled at approximately the same levels for at least a quarter century. Meat prices, for example, last changed in 1962. The retail subsidy is caused by the combination of stable retail prices and increasing farm costs. Each time farm costs have gone up, state controlled farm prices have also increased, and additional budgetary outlays also have been required to subsidize the prices of raw materials to food manufacturers so that they can continue to show a profit.

Before the 1960's, it was not considered particularly important that state factories, farms, or stores be financially profitable. For example, state farms' profits and losses were not even subject to careful accounting procedures, and were simply absorbed into the state budget. Fulfillment of detailed input plans and planned production and sales targets determined worker and manager remuneration. The state budget and bank were to a large extent servants of the plan, providing grants and credit as needed.

On collective farms, profits and losses were calculated and were more important. But only in the management of private plots (1.3 percent of arable land) were plans absent and not the overriding concern.

In the mid-1960's, the role of profits and prices relative to planning could have been changed significantly by reforms championed by Premier Kosygin. Many thought that the role of the plan might wither away, to be replaced by the pursuit of profits guided by prices. Such a possibility existed for farm sales. (Reform proposals intrigued western observers then as much as now. The cover of *Time*, for instance, carried a banner that asked, "Is the USSR going back to capitalism?")

In fact, decentralization did not occur. A stronger system of financial levers was initiated, but more to reinforce planning than to replace it. Detailed central planning, with its growing inconsistencies and

shortcomings, was retained to rule over an economy and an agricultural system that were becoming increasingly complex.

One of the principal reasons for the failure of decentralization was Soviet prices, which remained fixed and were unsatisfactory to guide voluntary decisions about purchases, production, and sales. Prices are not in equilibrium, although enormously difficult price revisions have made whole industries profitable on average. Individual products, however, remain extremely profitable or unprofitable. For agriculture, a fundamental problem is the lack of adequate land and income taxes. This overburdens farm prices so that they cannot guide decisions efficiently. Farm prices are established for groups of farms on a "cost-plus" basis to tax rent, a method that discourages production where it is efficient and encourages it where it is not.

Not only were farm input prices subsidized, but direct subsidies in the form of grants and forgiven bank loans ensured implementation of the state's investment plan. Together, the grants and remissions totaled about 40 billion rubles (\$60 billion) annually in recent years. As a result, prices did not gain their hoped-for capacity to moderate the mistakes of planning in agriculture.

Soviet wheat production provides an example of this. Even in 1975 and 1984, which were disastrous years, the USSR produced 66 and 69 million tons, twice as much wheat as the Soviets need each year for food. Yet, the Soviets regularly have been importing wheat for milling purposes (even up to three-fourths of their needs) because of the poor quality of the domestic crop. Farm managers are known to plant high yielding wheat varieties of poor quality because this is how they can fulfill output plans. They have also said that large price premiums offered for sales of quality wheat are not attractive. In some cases, farms already have accumulated excessive profits because the things they want to buy are rationed.

Easy credit and prices fixed at low levels have caused certain machinery, chemicals, construction materials, etc. to be universally in excess demand. As happens in any price control situation, rationing is inefficient, quality suffers, and waste occurs. Accounts

about poor allocation of industrial inputs are plentiful. For instance, it is apparently common for farms to purchase subsidized new tractors to cannibalize them for spare parts.

There are some signs that the financial largesse that was extended to agriculture over the past 20 years is passing. For instance, the fuel subsidy and some other subsidies (for construction materials, etc.), which had just been established, were abolished after Brezhnev's death in 1982. Remaining subsidies for mineral fertilizer and farm machinery (to be 2.6 and 3.0 billion rubles respectively in 1987) are being harshly criticized.

Agriculture's planned share in total investment was reduced for the first time by a decision made in 1986. Meantime, the share of food processing industries was raised. Interest rates on farm loans have been increased, and in the past year, budgetary grants apparently have been greatly reduced, although no data are yet available. In a speech given in June, the General Secretary claimed that orders for farm machinery had declined as a result of these measures. The mere fact that this is put forward as a positive development represents a radical departure from the thinking of the past.

How might recent developments with respect to farm subsidies affect Soviet food imports? A comprehensive answer is not now possible, because too little is known about how relative prices affect Soviet trade decisions. However, elimination of input subsidies should raise the calculated cost of production to reflect more truly social cost, which could make imports look more attractive. In principle, the same could be said of the inclusion of land rent in farm costs, although this development is a long way off.

It is more likely that were the Soviet price system really improved, efficiency would increase and tend to reduce Soviet imports, although individual commodities would be affected differently. This would happen if financial discipline reduced waste and if prices really helped allocate resources, determined farm specialization, and promoted other desired goals--like the production of high-quality wheat.

On the demand side, it is becoming apparent from statements of General Secretary Gorbachev and the new head of the price commission, Pavlov, that significant retail price increases are in the offing, to be

State subsidies for agriculture in the Soviet Union

Item	Annual average—									
	Billion rubles									
	1961–65	1966–70	1971–75	1976–80	1981	1982	1983	1984	1985	
 Direct subsidies										
Of which—	7.3	8.7	15.4	24.2	n.a.	35.8	37.0	n.a.	n.a.	
State expenditures:										
for irrigation, drainage, soil treatment, etc.	0.9 1/	2.1 1/	4.4 1/	5.5 1/	7.8 2/	9.9	7.6	8.2 3/	8.3 3/	
Retail price subsidies:	3.5 4/	7.8	17.2	24.2	n.a.	29.9	54.6 5/	n.a.	n.a.	
Input subsidies 6/	0	0.5	1.4	2.8	n.a.	8.2	4.2	n.a.	n.a.	
Total subsidies	10.8	17.0	34.0	51.2	n.a.	73.9	95.8	n.a.	n.a.	
Increase of long-run bank credit	1.0	1.6	3.0	4.0	n.a.	3.3	2.5	n.a.	n.a.	
Long-term credit forgiven by State	n.a.	n.a.	n.a.	n.a.	n.a.	2.4	2.4	2.4	2.5	
Losses on imports	n.a.	n.a.	n.a.	n.a.	n.a.	2.1	n.a.	n.a.	n.a.	

n.a. = Not available.

1/ Only new irrigation and drainage construction. 2/ Includes 0.2 billion rubles from collective farms funds.
3/ Estimated. 4/ Only for 1965. 5/ Including bonuses for low-profit and unprofitable farms (9.4 billion rubles) introduced as of 1-1-1983. 6/ Including mineral fertilizer, machinery, and, for 1978-1982, gasoline.

Sources: V. Semenov, Fin.-Cred. Mech. v rasvitii S./Khoz., 1983, pp. 142, 178, 179, 182; V. Semenov, Prod. Progr i finansy, 1985, pp. 53, 57, 113; Narkhoz, various issues; V. Garbusov, Finansy SSSR, 7, 1982, p. 10.

accompanied by compensating wage increases. Together with reduced currency growth, this increase could reduce the supply gap that has caused large meat and feed grain imports. A reduction of excess demand is especially possible if alternative consumer goods and services are made available, for instance, through the new initiative for private and cooperative ventures begun last year.

The further evolution of the Soviet system of farm prices and subsidies is

uncertain. The size of agricultural subsidies has been pointed to as justification for even more radical reforms, such as an enlarged role for family farming under contract to socialist farms. Such a development, which revives an aborted experiment of the 1960's, and is reminiscent of the Chinese responsibility system, is quite exciting. But the failed experiments and reforms of the past allow for only a cautious optimism about eventual realization of emerging Soviet thinking on overhauling its agricultural system.

...And In India

In India, economists are expressing concern about the income distribution consequences of historically increasing subsidies to producers of wheat and rice, the main irrigated crops. Economically, such subsidies have two effects. First, they channel land, fertilizer, and other productive resources into the high-cost irrigated sector when these resources might be used more efficiently (and, from the point of view of conservation, soundly) elsewhere. Secondly, since costs of production are one of the bases used by the Government of India to set wheat and rice procurement prices, and since procurement prices themselves reduce downward flexibility in free market prices, the producer subsidies ratchet prices of these grains upwards. 1/

The distortions induced by the subsidies manifest themselves in several ways:

- o Regionally, there is a widening aggregate income gap between grain-surplus and -deficit states.
- o Cropwise, the higher profitability of irrigated wheat and rice reduces relative incentives for production of non-irrigated crops like oilseeds; India now has exportable surpluses of wheat, but must

1/ Although the full cost of the investment made in irrigation is not factored into the costs of production of irrigated crops (which include nominal charges for irrigation water), the system followed by the Government of India to calculate costs of production includes an imputed rental value of owned land, which in the case of irrigated crop production obviously reflects the high value to private producers of such public investment.

India: Major subsidies in the agricultural sector, 1974/5-1981/2

Year	Price subsidy	Irrigation subsidy 1/	Fertilizer subsidy 2/	Rural development subsidy 3/	Total subsidies
Million rupees					
1974/75	295.0	1,937.0	3,981.0	180.0	6,393.0
1975/76	211.0	1,964.0	3,139.0	58.0	5,372.0
1976/77	145.3	2,214.0	900.0	275.0	3,534.3
1977/78	244.1	2,810.0	344.0	673.0	4,071.1
1978/79	253.1	3,968.0	2,925.0	2,591.0	9,737.1
1979/80	560.0	3,920.0	6,025.0	5,814.0	16,319.0
1980/81	661.8	4,785.0	5,053.0	7,261.0	17,760.8
1981/82	761.0	4,907.0	3,752.0	7,690.0	17,110.0

1/ Revenue expenditure on public major, medium, and minor irrigation systems including a normal return on capital, less revenues from water charges. 2/ Includes the subsidies on domestic and imported fertilizers and freight and distribution. 3/ A mix of poverty-oriented programs is included in this category. Note: Exchange rate is approximately 13 Rupees to \$1.

Source: Alain de Janvry and K. Subbarao, *Agricultural Price Policy and Income Distribution in India* (Delhi: Oxford University Press, 1986), table 1.6, p. 14. Original sources are footnoted.

use foreign exchange to fill the growing demand for vegetable oils.

- o And sectorwise there is a growing welfare gap between irrigated producers and the part of the rural population dependent on dryland agriculture; wheat and rice have become less affordable by the majority of low-income consumers, particularly those rural people without access to the fair-price shops of the Food Corporation

of India, where retail prices are subsidized and which are concentrated in urban areas.

In the rice-growing state of Andhra Pradesh, the non-Congress party chief minister has instituted his own rice distribution scheme at subsidized prices; the scheme is popular among consumers of rice, but constitutes a heavy burden on the state budget. [Arthur J. Dommen]

THE IMPACT OF THE EXPORT ENHANCEMENT PROGRAM ON THE NORTH AFRICAN WHEAT MARKET

Laura Mazzarella 1/

Abstract: The Export Enhancement Program (EEP) has served to maintain U.S. wheat markets in North Africa, even in the face of aggressive export promotion programs of the European Community. Longer-term implications are less certain. The EEP manifests U.S. determination to compete in world trade even in the face of others' subsidies. Critics say the EEP is inconsistent with U.S. objectives of eliminating subsidies. On balance, recognition by all concerned of the potentially increasing costs of retaliatory trade practices may well result in successful GATT negotiations.

Keywords: Export Enhancement Program, North Africa, wheat, export subsidies, exchange rates, wheat prices, competitive practices.

The Food Security Act of 1985 established the Export Enhancement Program (EEP). The goal of this program is to help make U.S. agricultural commodities more competitive by offsetting subsidies or other "unfair" trade practices, the adverse effects of price support levels temporarily above competitors' export prices, or fluctuations in exchange rates (8). 2/

An EEP initiative is required to meet four criteria: additionality (sales must increase U.S. agricultural exports above those that would have occurred in the absence of the program); targeting (sales are directed at specific markets, especially those in which

competitors subsidize their exports); cost effectiveness (sales must result in a net plus to the overall economy); and budget neutrality (sales must not increase budget outlays above those that would have accrued in the absence of the program) (7).

The EEP enables exporters to sell specific commodities to targeted countries at prices available from other exporters. The Commodity Credit Corporation (CCC) awards bonuses to exporters in the form of generic certificates which can be exchanged for CCC commodities to make up the difference between the price offered by other exporters and the unsubsidized U.S. price. Initially, \$2 billion in CCC commodities were to be provided over a 3-year period ending in September 1988. The Food Security Improvements Act of 1986 reduced the maximum value to \$1.5 billion, also specifying a minimum of \$1 billion.

1/ At the time she wrote this article, the author was a student intern in the Agriculture and Trade Analysis Division of the Economic Research Service, working under the supervision of David Stallings ((202) 786-1624).

2/ Numbers in parentheses refer to sources listed at the end of article.

The EEP and Other Credit Programs

The CCC also offers export credit programs to help expand U.S. agricultural exports. The CCC extends loan guarantees, under GSM-102, to private U.S. financial institutions who underwrite export credit sales of 3 years or less. The GSM-103 program provides similar guarantees for credit sales of up to 10 years. These activities encourage U.S. financial institutions to provide loans in cases where they would otherwise be more reticent (6, p. 27). Eligible countries are offered credit guarantees for specific agricultural products. These countries may pay lower interest rates than under strictly commercial circumstances----there is no risk premium added since the U.S. Government ensures repayment.

The combination of EEP and low-interest credit are a strong enticement to purchase U.S. export commodities. In fact, the timing of EEP and GSM-102 and 103 programs in North Africa, where cash is scarce, make it appear likely that the two types of program are sometimes used together. 3/

The EEP in North Africa

Over half the number of EEP initiatives through June 30, 1987, have involved wheat and wheat flour. Forty-two percent of the wheat EEP announcements have been directed at the North African countries of Algeria, Egypt, Morocco, and Tunisia, where wheat is a dietary staple. 4/ As of June 30, 1987, 90 percent of the offerings had been accepted. About 7.67 million tons of wheat had been sold to the region under the EEP at that time (12).

3/ Officials have noted that most countries which have GSM-102 available have used it for EEP purchases (7, p. 32). For example, on July 29, 1986, Egypt was offered a 52,000 ton wheat initiative under the EEP. Egypt became eligible, in August, for an additional \$25 million under GSM-102. On August 8 an EEP sale of about \$16.9 million (estimated FOB price) was made. An \$18 million use of GSM-102 credit was recorded on the same date.

4/ Unless otherwise noted, wheat refers to whole grain wheat.

Rapid population growth and insufficient production make imports crucial to this region. Governments of North African countries generally determine agricultural policies and intervene in the marketing and trading of agricultural commodities. Central agencies in each country set consumer and producer subsidies, commodity prices, and purchase and distribute inputs such as machinery, seeds, and fertilizer. Food security is a vital interest, and it is politically necessary for governments to provide basic food at low prices (3).

The first EEP initiative was to Algeria, on June 4, 1985, for 1 million tons of non-durum wheat. Through the end of the 1986/87 marketing year, there have been three more initiatives: one for another 1 million tons of non-durum wheat, and two for 300,000 tons of durum wheat. Algeria has 384,000 tons of wheat remaining under the non-durum initiative of April 4, 1986. U.S. exporters, for all four initiatives, received bonuses redeemable for CCC commodities averaging just under \$39 per ton.

Offers to Egypt for wheat under the EEP were first made on July 26, 1985 for 500,000 tons. Sales were completed within 2 months. As of June 30, 1987, all of the initiatives since the beginning of the program were completed. A total of 2.6 million tons have been sold. Average bonuses were \$28.62 per ton.

EEP wheat initiatives in North Africa

Country and date	:	Quantity	:	Percent sold
	:	1,000 tons		Percent
Algeria:	:			
6/04/85	:	1,000		100
4/10/86	:	1,000		72
11/10/86	:	300		100
3/16/87	:	300		100
Egypt:	:			
7/26/85	:	500		100
10/30/85	:	500		100
6/24/86	:	500		100
7/29/86	:	52		100
10/08/86	:	1,000		100
Morocco:	:			
9/30/85	:	1,500		100
12/09/86	:	790		100
Tunisia:	:			
3/18/86	:	300		100
8/22/86	:	800		38

Morocco was offered 2.29 million tons under two EEP initiatives. By June 3, 1987, the full amount had been sold. The average bonus awarded was about \$35 per ton.

In March 1986, Tunisia became eligible to purchase 300,000 tons of wheat under the EEP. The entire amount was sold, as well as an additional 300,000 tons under an 800,000-ton initiative on August 22, 1986. Some 500,000 tons of wheat remain available to Tunisia. The average bonus was \$24.54 per ton.

The Effect on Market Share

The U.S. share of the Algerian wheat market had begun loosening in 1982/83, as the European Community (EC) gradually increased its presence. However, that trend reversed in 1985/86, after introduction of the EEP. During the 1985/86 trade year, the United

States secured a larger share of the Algerian commercial wheat market, chiefly at the expense of the EC.

In the other North African countries, the U.S. market share actually decreased from the 1984/85 trade year to the 1985/86 trade year. The changes in Morocco and Egypt were relatively small. The change for the Tunisian wheat market was, however, much more dramatic, as U.S. market share fell from 74 percent to 11 percent, while the EC's share soared to 89 percent. Increased overall U.S. wheat exports to Tunisia, largely represented by EEP sales, should increase the U.S. share considerably.

Overall in the North African wheat market, the U.S. share fell 1 percent during 1985/86, and the EC share decreased 4 percent. Both Australia and Canada had modest increases.

U.S. and competitors' shares of North African wheat market

Country & suppliers	1980/81	1981/82	1982/83	1983/84	1984/85	1985/86
Percent						
Algeria:						
Argentina	0	5	0	0	0	0
Australia	0	0	0	0	0	0
Canada	49	27	28	36	22	24
EC	19	30	37	46	53	20
United States	32	38	35	18	25	56
Egypt:						
Argentina	0	0	1	1	0	0
Australia	53	54	56	45	69	68
Canada	0	0	0	15	14	15
EC	24	1	12	27	0	1
United States	23	44	31	12	17	16
Morocco:						
Argentina	0	0	0	0	0	0
Australia	0	0	0	0	0	0
Canada	0	1	0	0	0	0
EC	69	60	24	23	39	47
United States	31	39	76	77	61	53
Tunisia:						
Argentina	0	0	2	3	0	0
Australia	0	0	0	0	0	0
Canada	0	2	0	0	0	0
EC	56	68	62	29	26	89
United States	44	30	36	68	74	11
Total:						
Argentina	0	1	0	1	0	0
Australia	25	21	27	19	26	29
Canada	10	8	7	16	11	13
EC	37	29	24	31	27	23
United States	28	40	41	33	36	35

Source: International Wheat Council.

It is difficult to predict what might have happened to U.S. market share had the EEP not been implemented, although it is doubtful that U.S. wheat exports of significant size could have been made without the EEP. Many of the sales during 1985/86 were under the EEP. In Algeria, more than half of the commercial wheat purchases were under the EEP. The EEP also accounted for more than 98 percent of Morocco's U.S. wheat imports and for 73 percent of Tunisia's. However, the fact that EEP initiatives were not made to these latter countries until late in the trade year and that most of the wheat sales in these countries were under the EEP suggest that the EEP played a significant role in selling U.S. wheat.

Complete market share information for the 1986/87 trade year is not yet available. Scheduled EEP wheat shipments for all four countries have increased over the previous year. U.S. wheat exports to North Africa, including PL-480, have also substantially increased from the 1985/86 trade year to the 1986/87 trade year.

Preliminary data on imports to North Africa for the 1986/87 trade year indicate that the region imported 12.9 million tons of wheat and wheat flour. 5/ Since U.S. exports of wheat alone account for nearly half of this figure, it appears that the United States has increased its market share considerably in the 1986-87 trade year.

The EC's Response

The EEP, in North Africa, has been particularly aimed at countering the EC's export subsidies. The EC offers export restitutions, or refunds. The EEP is intended

Scheduled EEP wheat shipments to selected North African countries

Country	1985/86	1986/87	Change
:			
-----1,000 tons-----			
Algeria	697	994	43
Egypt	698	1,435	106
Morocco	890	1,230	38
Tunisia	50	550	1,000

Source: USDA press releases through June 1987.

5/ ERS (Matrix).

Wheat shipments to selected North African countries

Country	1985/86	1986/87	Change
:			
-----1,000 tons-----			
Algeria	1,391.6	1,613.6	16
Egypt	1,650.6	2,598.2	57
Morocco	1,017.6	1,561.8	53
Tunisia	68.6	634.8	825
Total	4,128.4	6,408.4	55

Source: U.S. Export Sales through June 1987.

to protect U.S. market share against those EC exporting practices that significantly undercut U.S. prices in selected markets. The EC, on the other hand, claims that the EEP is unfair, and that it and the lower U.S. loan rate depressed world prices.

After an initial period of cautious waiting, the EC soon increased its export restitutions. In September 1985, *Agra Europe* reported the following:

"There has been an increase in the tension in the world wheat markets between the EEC and the U.S. following an emergency meeting of the EEC Cereals Management Committee this week which decided to offer a special wheat export refund to Zone 1 (Mediterranean basin area) of 50 ECU per ton (about \$41). The move followed U.S. sales under the U.S. export bonus programme of 750,000 tons of wheat and 175,000 tons of wheat flour for Egypt and rumors of further sales of around 250,000 tons in the pipelines to Algeria (1)."

Export refunds by the EC are intended to bridge the gap between the relatively high price at home and the lower world price. These restitutions are set weekly by the Cereals Management Committee. The EC also employs export "correctives." These are similar to premiums, and are fixed for exports in forward months, taking into account anticipated developments on the world market and forward prices. A positive corrective increases the export refund paid, a negative one is subtracted (2).

Since 1985, the maximum EC refund for wheat exports has increased sharply. Though

European Community maximum refund on exported wheat,
and dollars per European Currency Unit (ECU)

Year and month	Maximum refund	U.S. dollars per ECU	Maximum refund
	ECU's	Dollars	Dollars per ton
1982 January	61.22	1.0593	64.85
February	65.21	1.0170	66.32
March	65.60	0.9952	65.29
April	64.66	1.0210	66.01
May	69.98	1.0178	71.23
June	70.72	0.9598	67.88
July	68.00	0.9615	65.38
August	71.19	0.9435	67.17
September	75.64	0.9306	70.39
October	81.71	0.9178	74.99
November	71.69	0.9330	66.89
December	77.24	0.9677	74.75
1983 January	80.09	0.9370	75.04
February	81.28	0.9441	76.74
March	81.80	0.9238	75.57
April	68.60	0.9211	63.19
May	63.40	0.9060	57.44
June	28.47	0.8918	25.39
July	27.73	0.8622	23.91
August	35.76	0.8426	30.13
September	42.05	0.8594	36.14
October	48.43	0.8590	41.60
November	47.93	0.8384	40.18
December	45.87	0.8274	37.95
1984 January	34.46	0.8012	27.61
February	36.72	0.8604	31.59
March	44.34	0.8598	38.12
April	33.42	0.8238	27.53
May	NA	0.8180	NA
June	13.63	0.8030	10.94
July	13.83	0.7733	10.69
August	15.53	0.7740	12.02
September	2.54	0.7780	1.98
October	NA	0.7357	NA
November	15.93	0.7218	11.50
December	NA	0.7080	NA
1985 January	20.99	0.7020	14.73
February	21.31	0.6676	14.23
March	28.20	0.7271	20.50
April	33.94	0.7243	24.58
May	39.71	0.7265	28.85
June	NA	0.7340	NA
July	22.30	0.8014	17.87
August	37.24	0.8004	39.37
September	51.50	0.8262	50.10
October	76.17	0.8457	64.42
November	72.29	0.8771	63.41
December	65.97	0.8870	58.52
1986 January	NA	0.9071	NA
February	79.00	0.9707	76.69
March	91.50	0.9567	85.71
April	99.99	0.9833	90.32
May	96.41	0.9324	89.89
June	NA	0.9782	NA
July	99.98	1.0110	101.08
August	108.45	1.0245	111.11
September	118.28	1.0296	121.78
October	162.07	1.0104	163.76
November	120.25	1.0521	126.52
December	132.50	1.0704	141.83
1987 January	140.53	1.1375	159.85
February	116.86	1.1285	131.88
March	134.61	1.1480	154.53
April	NA	1.1617	NA
May	NA	1.1394	NA

NA = Not available or no refund reported.

Source: Agra Europe, International Monetary Fund.

in certain months no bids were accepted, this only means that the Commission believed that enough wheat had been moved in that time period or that the price that exporters were asking was too high. The trend is definitely upward. Higher restitutions are due to increased U.S. competitiveness from lower loan rates and the falling dollar. But they are also a response to the EEP, as officials from the Cereals Management Committee are often quoted in explaining specific refunds.

North Africa does not usually receive the maximum refund, because of its proximity. However, since the beginning of the EEP many special, additional short-term refunds have been offered to the area. The extra amount has ranged from \$13 to over \$64 per ton (more than any U.S. bonus). Occasionally, a much higher refund will be offered for just a day to facilitate sales. North Africa has generally been the beneficiary of the EC's lowest effective wheat export prices.

Even when EC price and refund information is available, subsidized credit like COFACE, a source of credit for French grain sales, acts to disguise the true EC prices. In February 1986, *Agra Europe* reported that the EC would defend its commercial interests using a comprehensive export program that would extend beyond export refunds (1). It

would supplement existing variable export refunds with EC-financed subsidies for extended credit, maritime freight, and insurance. Cheap financing, especially in North Africa, is considered a more effective weapon than merely increasing the normal export refunds. 6/

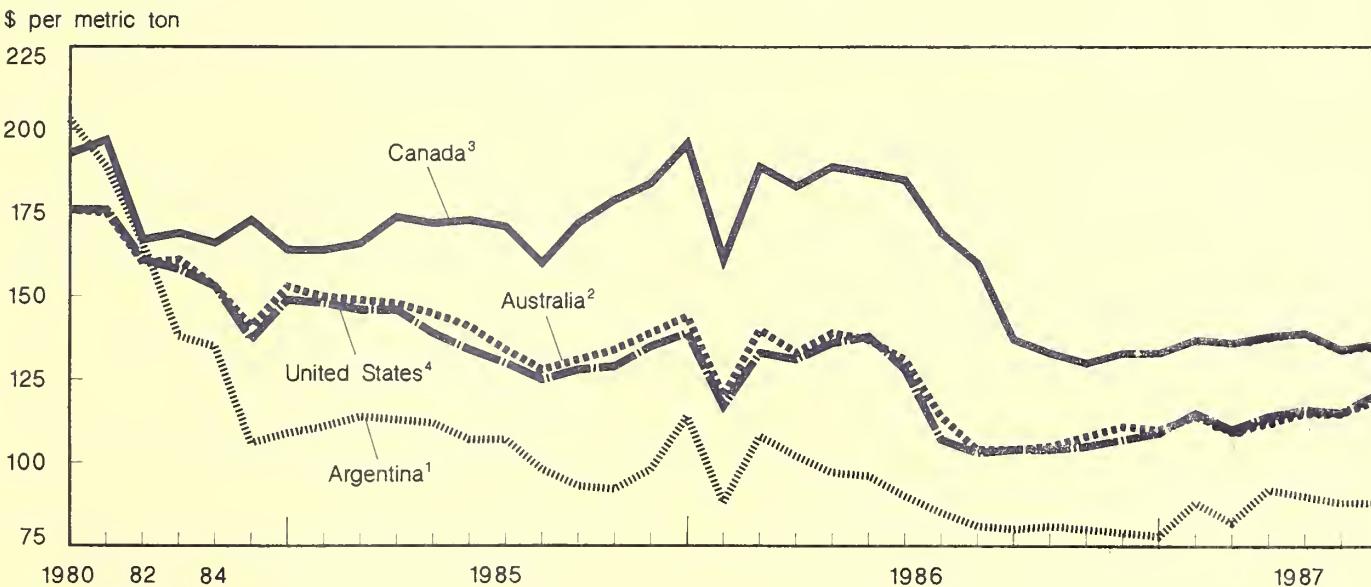
Trend in World Wheat Prices

Since 1980, the average annual wheat price has declined in Argentina, Australia, Canada, and the United States. Monthly prices from January 1985 through May 1987 reflect similar patterns in all four countries. The trend was downward until mid-1985. Prices then rose rapidly until early 1986, after which they fell sharply. The trend through May 1987 was a slow and gradual increase, but prices remained well below those of previous years, even before the most recent declines.

Many factors are behind the decline in world prices. One was the lower loan rate set as a result of the Food Security Act of 1985. This had the effect of lowering world wheat prices as competitors set their prices below the FOB equivalent of the loan rate. The issuance of generic certificates also allows

6/ See (5) for an analytical discussion of market conduct in North Africa.

Wheat Prices for the United States and Major Competitors



1/ FOB Buenos Aires.

2/ FOB Standard White.

3/ Canadian winter red, FOB Thunder Bay.

4/ U.S. #2 Hard Red Winter, FOB Gulf.

market prices in the United States to fall below current loan rates. Other causes reflect the rising surpluses and increasing competition for world wheat markets from Argentina, Australia, and Canada, as well as the EC. A possible reason for the lower prices is the depreciation of the U.S. dollar, down 40 percent against the European Currency Unit from January 1985 through June 1987 (4). This situation makes U.S. exports more competitive, forcing other countries to lower their prices in response.

Costs and Benefits

Through June 1987, the EEP has resulted in \$254 million worth of bonuses for wheat exports to North Africa. Rescheduled debt under GSM-102 from its introduction in 1981 to the present is \$170.3 million, primarily by Morocco (11). Algeria began taking advantage of GSM-102 in fiscal 1986, Tunisia and Egypt began in 1983, while Morocco began in 1981. Any costs incurred from rescheduled payments are not necessarily for sales made in the same time period.

Export subsidies also have hidden costs. They depress world prices and avoid the roots of the current problems, which are world surpluses and stagnant demand. More broadly speaking, such subsidies appear to be inconsistent with U.S. objectives of reducing or eliminating subsidies altogether, as critics of the EEP point out. The logical response to that argument, however, is that the basic reason for the EEP is the U.S. determination to compete in world trade even with the subsidies in existence (9).

The EEP may well be having positive results. Some analysts see the EC as having already begun reform of the Common Agricultural Policy (10). The first phase of policy reform, involving price cuts for feed wheat and barley and a continuation of the price freeze for bread wheat, was introduced in the 1986/87 marketing year, they say.

Summary

The EEP has helped the United States retain its hold of the North African market in

7/ The European Currency Unit (ECU) is based on a weighted basket of European currencies.

the face of fierce competition from the EC. The U.S. market share has increased in several of the EEP-targeted markets, as evidenced in Algeria. It is difficult to determine to what extent the criterion of additionality has been met, but certainly U.S. exports of wheat are higher than they would have been without the EEP. The EEP, combined with effects of a lower U.S. loan rate and a declining dollar, has increased budgetary pressure on the EC, as evidenced in part by increasing restitutions, and may help bring about reform and negotiation.

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